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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/788,972

02/27/2004

Uwe Schlagenhauf

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6823

23598 7590 02/12/2007

BOYLE FREDRICKSON NEWHOLM STEIN & GRATZ, S.C.

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MILWAUKEE, WI 53202

EXAMINER

ADDISU, SARA

ART UNIT

PAPER NUMBER

3722

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/788,972

Applicant(s)

SCHLAGENHAUF ET AL.

Examiner

Sara Addisu

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/2/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the amendment filed 11/2/06. New claim 22 has been added. Currently, claims 1-22 are pending in this application.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Further review of the Specification does not disclose this aspect of the claimed subject matter. For the purpose of this Office Action, Examiner interprets it as, the movement of the screw part causes the insert to be adjusted.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 (line 1) recites the limitation "the narrow point". There is insufficient antecedent basis for this limitation in the claim.

3. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- Claim 20, line 2 recites "...the cutting insert is formed by an DIN/ISO indexable insert". From the way it is written, it is not clear how the "DIN/ISO" limits the claimed subject matter. For the purpose of this office action, Examiner interprets it as "...the cutting insert is indexable".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-11, 14, 20 and 22, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kress (USP 6,692,198), in view of Kress et al. (USP 4,344,724).

KRESS ('198) teaches a rotationally driven cutting tool for machining of workpieces, having a cutting insert (11) fastened detachably in the tools pocket and

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clamped flatly against a base surface of the pocket, a fine adjustment device having an adjustment element (27) that is supported on the lateral wall face (23) of the insert (11) and is displaceable relative to the insert via an adjusting screw arrangement ('198, figures 1, 2, 5a-5e and Col. 2, lines 28-37). KRESS also teaches adjusting screw (31) having left-hand external threaded portion (43 and right-hand external threaded portion (45) held through opening of the tool body ('198, figure 5a and col. 3, lines 42-50).

Furthermore, KRESS teaches in figure 1, the adjusting screw (31) being placed into the through opening of the tool from the side facing the base surface. KRESS also teaches the set screw (31) is accessible from the right (i.e. can be actuated from the other side opposite the base) ('198, col. 2, lines 44-47). Regarding claim 5, the adjusting element (27) is seated flatly (via surface 29) on the lateral wall (23) of the cutting insert (11).

Regarding claim 8, KRESS teaches the pocket having two supporting walls (A & B: where B is formed by 27) that accepts the cutting insert which together enclose an angle that corresponds to a corner angle of the cutting insert. Regarding claims 9 and 10, KRESS teaches the cylindrical through opening in the tool holder extends along an axis that is placed at an angle (90 degrees) to the base surface of the pocket of the tool holder. Regarding claim 14, KRESS discloses the claimed invention (i.e., threaded bolt), except for the winding of the threaded bolt (consequently also the complementary threaded sleeve after the modification) having a size in the range of M.08-M16 or M1.2-M16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose different screws having different ranges of thread winding depending on the machining operation taking place (e.g. depending on the

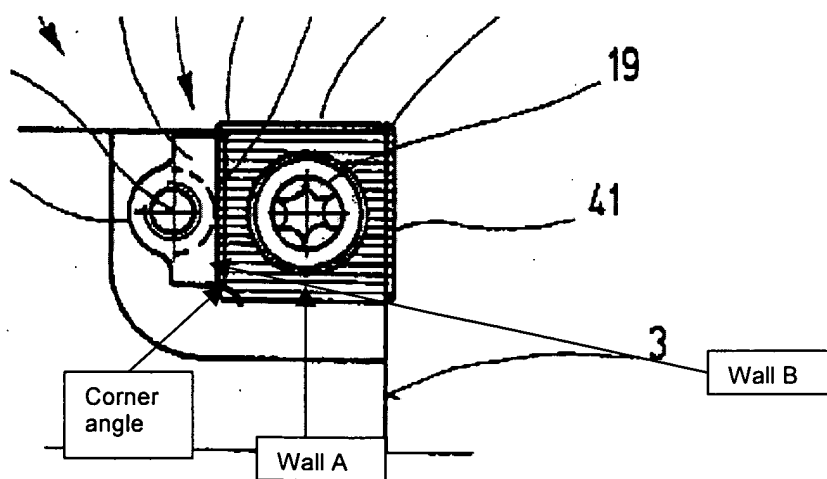
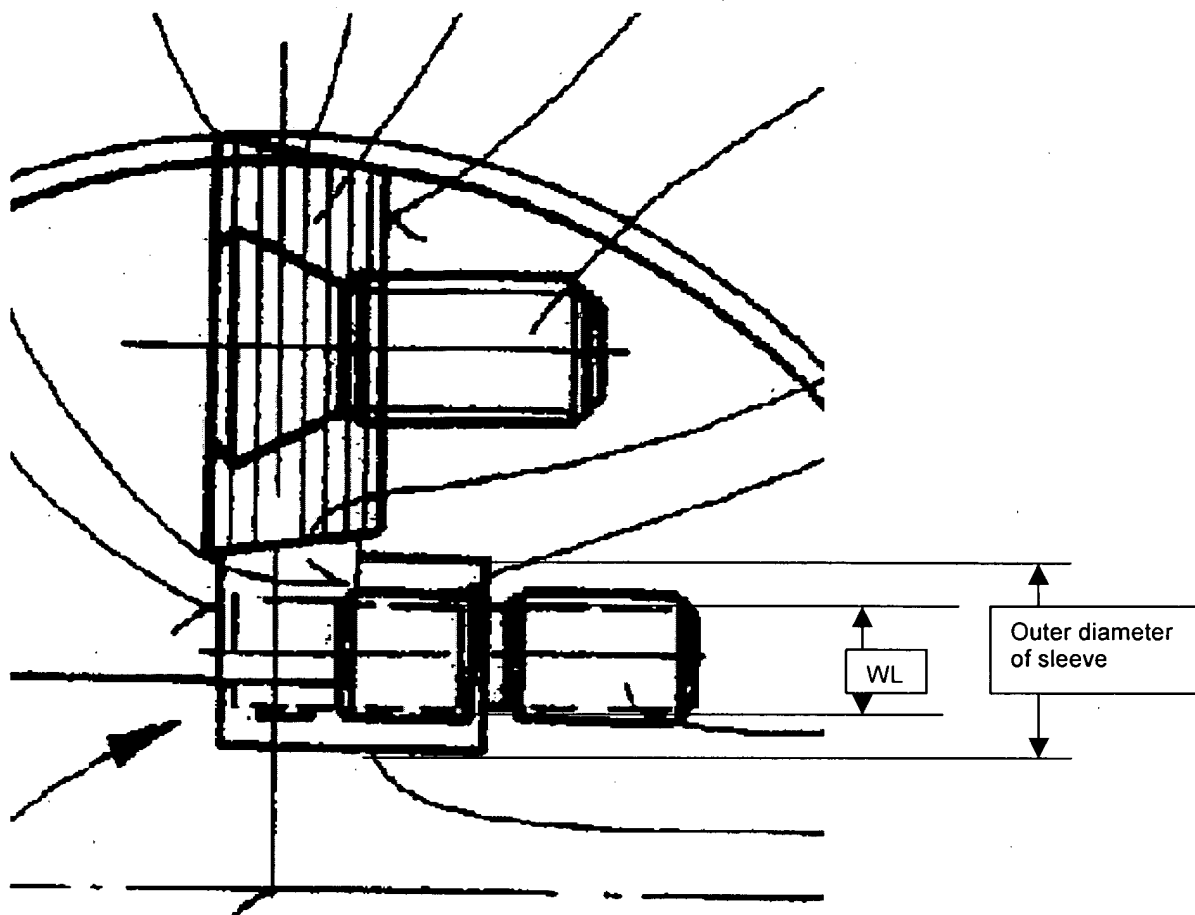
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quality of finished surface of the workpiece desired) such that one can determine how far and how controlled the insert needs to extend/be adjusted, because it has been held that where the general conditions are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art.

However, KRESS ('198) fail to teach the adjusting screw having a threaded sleeve.

KRESS et al. ('724) teaches a cutting tool having an adjusting screw comprising a threaded sleeve (5) held with play in a smooth through opening of the tool body and being in functional engagement with a screw part (6) ('724, figures 1 and 6). KRESS et al. also teaches the threaded segment of the screw part/bolt (6) going over a step into a wedge-shaped head (4) that forms the adjustment element ('724, figures 1 and 6). Furthermore, KRESS et al. teaches the adjusting element (27) being seated flatly (via surface 41) on the lateral wall of the cutting insert (3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the adjustment means of KRESS' invention such that it has a sleeve, as taught by KRESS et al. for the purpose eliminating the added manufacturing step (i.e. making the threading inside the tool body to engage the differential screw) as well as to eliminate any vibration between that may be caused overtime between the joint threading of the two pieces thus leading do improved cut on the workpiece.



2. Claims 12, 13, 15-19 and 21, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kress (USP 6,692,198), in view of Kress et al. (USP 4,344,724) and further in view of Schulz et al. (USP 5,549,975).

The modified device of KRESS teaches a rotationally driven cutting tool, as set forth in the above rejection.

However, the modified device of KRESS fails to teach the material composition of the tool.

Regarding claims 12, 13, 15-17 and 21, SCHULZ ET AL. teaches the body of a cutting tool being made of cermented carbide as well as providing it with coating at least in the working area with hard material such as TiN and TiAlN ('975, col. 1, lines 5-8, Col. 2, lines 66-67). Regarding claim 18, SCHULZ ET AL. teaches coating of TiC, TiN or TiCN or of a mixture of these materials ('975, col. 1, lines 29-30). Furthermore, regarding claims 17 and 19, it would have been obvious to select the percentage of layer depending on the wear resistant strength desired, because it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. Applicant should further note that Specification gives no criticality to the claimed limitation (see Page 12, , paragraph 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to make the tool body of KRESS's invention from hard material with coating, as taught by SCHULZ ET AL. for the purpose of improving wear resistance ('975, col. 1, lines 58-61).

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sara Addisu
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SA
2/5/07


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